

METHODS FOR FORMING A METAL CONTACT IN A SEMICONDUCTOR
DEVICE IN WHICH AN OHMIC LAYER IS FORMED WHILE FORMING A
BARRIER METAL LAYER

Abstract of the Disclosure

A metal contact in a semiconductor device is formed by forming an insulating layer having a contact hole therein on a silicon substrate. A cobalt layer is formed on a bottom and inner walls of the contact hole. A cobalt silicide layer is formed at the bottom of the contact hole while forming a titanium layer on the cobalt layer. A plug
5 is formed on the titanium layer so as to fill the contact hole.